US ERA ARCHIVE DOCUMENT



Eastern Interconnection States' Planning Council: Formation and Future

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EPA Webinar

January 31, 2011

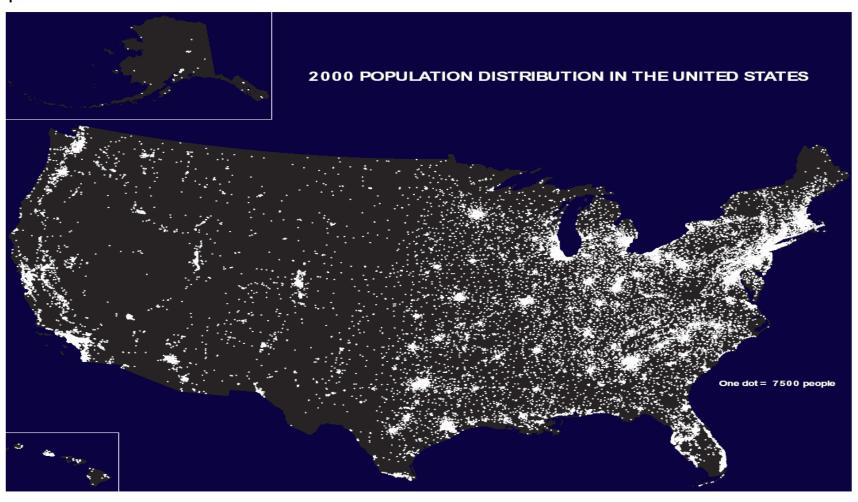


Why do this now?

The United States operates on electricity.



Population distribution in the US.





Why do this now?

ELECTRICITY MUST BE:

- --RELIABLE
- --AFFORDABLE
- -- ENVIRONMENTALLY SENSITIVE

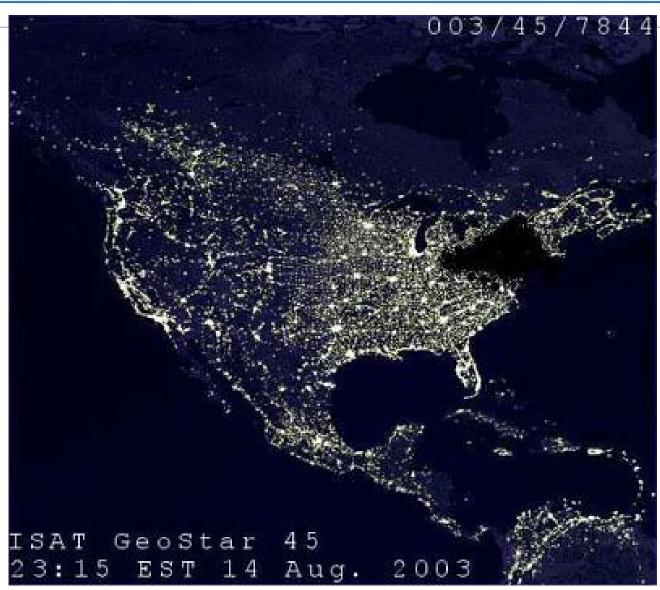


EISPC

EASTERN INTERCONNECTION STATES' PLANNING COUNCIL

Interdependence

Artist Rendition of 14.8.2003 blackout, at time of voltage collapse





In addition to the demands placed on electricity, the construction of the electricity delivery system – the "power line grid" – has not kept pace with today's demands for electricity.

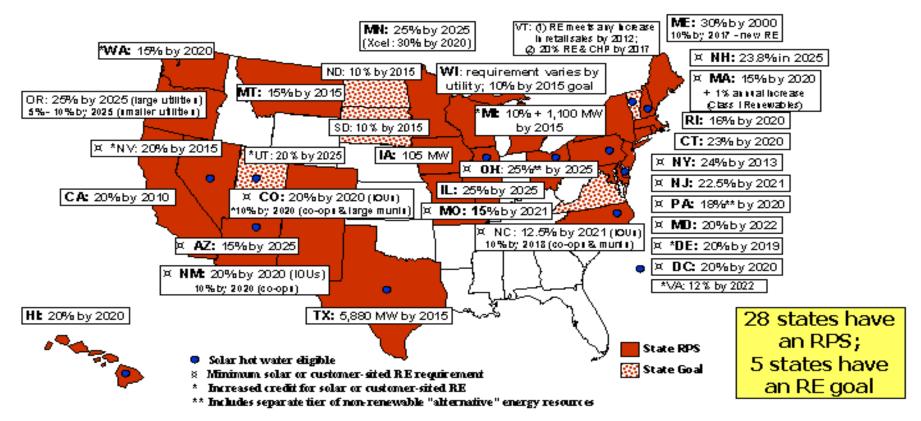
Public policies regarding renewable energy use and renewable energy located far from major population centers exacerbate the issue.



Renewable Requirements in the States – NOT A UNIFORM REQUIREMENT!

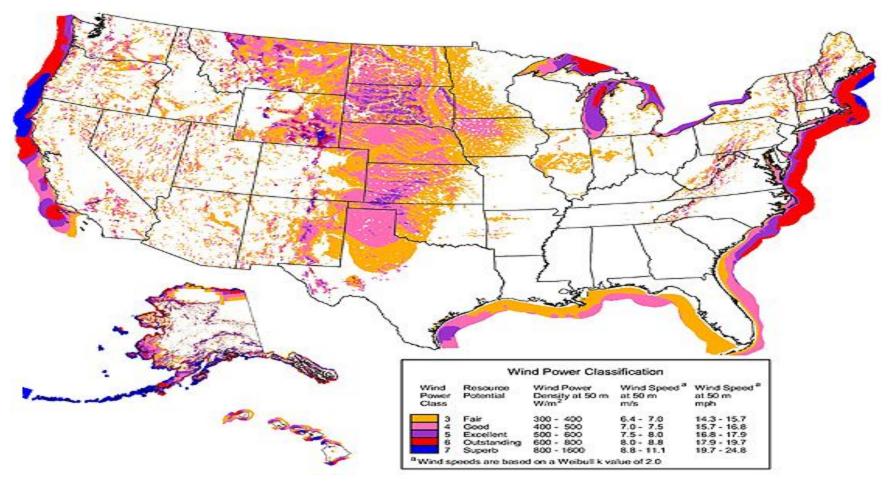
DSIRE: www.dsireusa.org January 2009

Renewables Portfolio Standards





Wind Resources in the U.S.





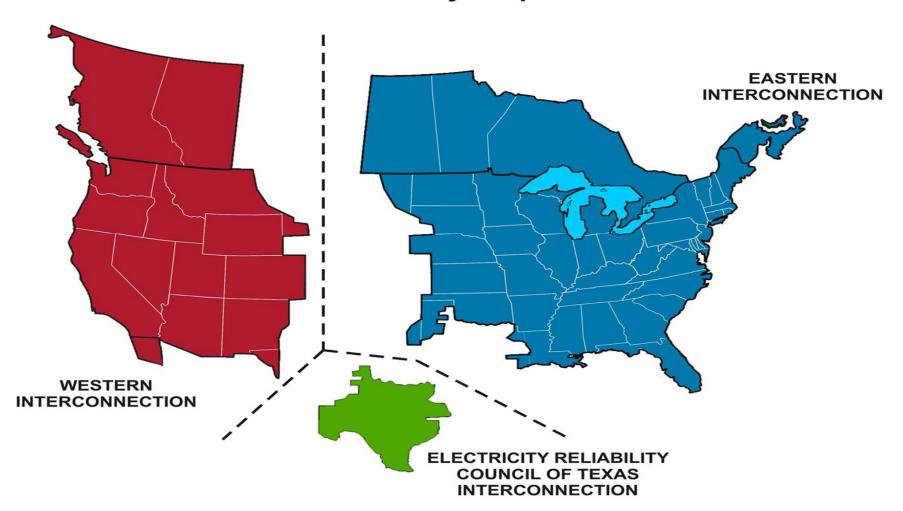
The first of its kind...

"The objective of this Funding Opportunity
Announcement is to facilitate the development or
strengthening of capabilities in each of the three
interconnections in the lower 48 states of the United
States, to prepare analyses of transmission
requirements under a broad range of alternative
futures and develop long-term interconnection-wide
transmission expansion plans."

Department of Energy, Funding Opportunity Announcement DE-FOA000068



North American Electric Reliability Corporation Interconnections





TWO TEAMS IN PLANNING EFFORT

Engineering Team (EIPC)

- Planning Authorities =
 - Regional Transmission Organizations (RTO)
 - Transmission Owners
- Run models and prepare the transmission plans
- Stakeholder Committee provides strategic advice

Policymakers Team (EISPC)

- State representatives— Commissioners, Governors' Reps., SEOs, Environmental Agencies
- Provide inputs to modelers through Stakeholder Committee
- Conduct Studies
- Prepare Whitepapers



EISPC TASKS

- 1. Coordinate with SSC and EIPC Engineering Team:
 - Identify 8 hypothetical futures/72 Sensitivities
 - Select 3 hypothetical futures for grid design
 - Provide input on grid design
 - Participate in the Stakeholder Steering Committee.
- 2. Conduct Studies to Inform Future Transmission Actions and State Decision-Making (including a study of Energy Zones in the States in the EI)
- 3. Prepare Whitepapers to Inform Decision=Making



Eight Futures

- 1. Business as Usual
- 2. Carbon Capture -Top-Down Implementation
- 3. Carbon Capture –State/Local Implementation
- 4. Aggressive EE/DR/DG/Smart Grid
- 5. Federal RPS National Implementation
- 6. Federal RPS State/Regional Implementation
- 7. Nuclear Resurgence
- 8. Combined Federal Climate and Energy Policy All Futures contain environmental components, including the EPA Rulemaking



Studies

- 1. Energy Zones—State-by-State Potential
- 2. State-by-State Potential for DSM
- 3. State-by-State Potential for Energy Storage
- 4. State-by-State Potential for DG
- 5. Identify Locations for New/Uprated Nuclear
- 6. State-by-State Assessment of Sm. Generation
- 7. Assessment for Coal Development with CCS
- 8. State-by-State Potential for Fast-Start Gen.
- 9. Assessment of Other Carbon Reduction Steps
- 10. Assessment of Gas/Other Fuel Prices



Whitepapers

- 1. Energy Values Impacted Resource Selection
- 2. Market Structures Impacting Resource Choice
- 3. Financial Implications of PPAs
- 4. Inventory Gov. Policies Impacting Transm.
- 5. Incentives/Disincentives for Energy Develop.
- 6. PHEV: Identify Potentials and Implications
- 7. Evaluate Local vs. Remote Generation
- 8. Economic Uncertainties for emerging tech.
- 9. Smart Grid: Identify Potential and Impacts
- 10.Aspects of existing RPSs—"off ramps"
- 11.RPS Fuels/ Technologies Inclusions



TIMELINE FOR EISPC TASKS:

- -- COMPLETE MODELING INPUTS MARCH 2011
- --BEGIN ENERGY ZONES AND OTHER STUDIES
- **AND WHITEPAPERS MARCH 2011**
- -- BEGIN TRANSMISSION "BUILD OUT" STUDIES -- LATER IN 2011 INTO 2012
- --EXAMINE MODELING, STUDY AND WHITEPAPER RESULTS—END OF 2012 INTO 2013



Questions?